

REMARKS

Applicants thank the Examiner for the careful consideration of this application. Claims 3-11, 13-18, and 20-21 are currently pending. Claims 13, 14, 17, 20, and 21 have been amended. Claim 12 has been cancelled, without prejudice. Based on the foregoing amendments and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Claim Rejections Under 35 U.S.C. § 112

The Office Action rejected claims 13 and 17 under 35 U.S.C. § 112, second paragraph, as being indefinite for lacking antecedent basis for “the measured results” or “the measurement results.” Claims 13 and 17 have been amended to replace these claim elements with “the measured electrical signals,” for which there is antecedent basis. Accordingly, the Applicants respectfully request that this rejection be withdrawn.

Claim Rejections Under 35 U.S.C. § 102

The Office Action rejected claims 3-18, 20, and 21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,477,741 to Hösel. Claims 20 and 21 are the independent claims. The Applicants respectfully submit that Hösel does not anticipate independent claims 20, and 21, as demonstrated below.

Independent claim 20 has been amended to clarify that “the waste compris[es] good fibers and contaminants,” and that the “photoelectric sensor [is] adapted to detect light reflected *solely from the good fibers* located in the waste and convert the reflected light into electrical signals”

(emphasis added). Support for this amendment is found, for example, at page 18, lines 8-13 of the specification, where it states that “[a]s a result of the incident light method, the contaminant content of the items is invisible to the sensor so that, with this measurement method, neither the contaminant content nor the brightness of the separated-out waste is assessed but rather only the variation in the brightness of the good fibers.” Claim 20 has also been amended to include the elements of previous claim 12, now cancelled.

Hösel does not disclose the arrangement of independent claim 20. First, Hösel does not disclose a photoelectric sensor adapted to detect light reflected *solely from the good fibers* located in the waste, as claimed. In contrast, the system of Hösel is “oriented in such a manner that it can detect the fiber material *as well as other particles* as they flow in the conduit 44.” (See, e.g., Hösel at 4:50-55 (emphasis added).) Further, Hösel discloses that the type and size of the *separated impurities* can be obtained based on appropriate picture-capturing and image-evaluating technology. (See, e.g., Hösel at 5:26-34.) Thus, it is clear that in the system of Hösel, the cameras 41 detect light reflected by both the contaminants and the good fibers. For at least this reason, the Applicants submit that Hösel does not anticipate independent claim 20.

Claim 20 has also been amended to recite “an electronic evaluation device arranged to determine one or more parameters selected from: the variation of the brightness of the light reflected solely by the good fibres; the coefficient of variation of the brightness of the light reflected solely by the good fibres; and the standard deviation of the brightness of the light

reflected solely by the good fibres.” This claim element is similar to previous dependent claim 12, now cancelled.

In the Office Action, the Examiner stated that “Hösel teaches using an electronic evaluation device to determine material specific statistics . . . thus it is implicit that Hösel determines one or more [of the claimed parameters].” The Applicants respectfully disagree that Hösel implicitly anticipates the claimed invention. In order for a reference to anticipate by inherency, extrinsic evidence must show that the asserted inherent characteristic of the reference “*is necessarily present* in the thing described in the reference, and that it would also be so recognized by persons of ordinary skill in the art.” See, e.g., Continental Can Company USA v. Monsanto Co., 948 F.2d 1264 (Fed. Cir. 1991) (emphasis added). This is not the case with Hösel. Hösel does not *necessarily* determine the claimed parameters simply because it determines material specific statistics. Rather, those material specific statistics could be determined in various different ways than in the claimed invention. For example, they could be determined by analyzing the color of individual pixels in the image captured by the cameras 41. Therefore, Hösel does not inherently anticipate amended claim 20. Moreover, nowhere does Hösel disclose determining the claimed parameters based on light *solely* reflected by the good fibers.

For the above reasons, the Applicants submit that independent claim 20, and all of its dependent claims, are patentable over Hösel. Independent claim 21 has been amended in a similar manner to claim 20, and therefore, is patentable for at least the same reasons.

Claim Rejections Under 35 U.S.C. § 103

Claims 3-18, 20, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hösel in view of EP 0 226 430 A2 to Farah. Claims 20 and 21 are the independent claims.

As demonstrated above, claim 20 is patentable over Hösel for at least two reasons. For one, Hösel does not disclose a photoelectric sensor adapted to detect light reflected *solely from the good fibers* located in the waste, as claimed. Farah does not remedy this deficiency of Hösel. Rather, similar to Hösel, the system of Farah detects light reflected by *both* the good fibers and the foreign content. (*See, e.g.*, Farah at 4:11-37 (“By computing the brightness level of *each* pixel throughout the sample” (emphasis added)); *see also* 2:21-34.)

Further, Farah does not disclose the claimed “electronic evaluation device arranged to determine one or more parameters selected from: the variation of the brightness of the light reflected solely by the good fibres; the coefficient of variation of the brightness of the light reflected solely by the good fibres; and the standard deviation of the brightness of the light reflected solely by the good fibres.” Rather, the system of Farah digitizes a picture of the sample (both fiber material and foreign matter) and compares the brightness of pixels of the fiber material to the brightness of the pixels of the foreign matter. This is different from the claimed invention, which determines the variation, the coefficient of variation, or the standard deviation of the brightness of light reflected *solely* by the good fibres. Thus, no combination of Hösel and Farah renders obvious the invention of claim 20, or any of its dependent claims. Independent

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claim 21 includes similar elements to claim 20, and therefore, is patentable for at least the same reasons.

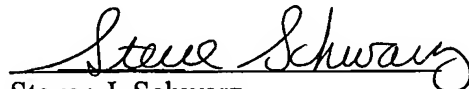
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants, therefore, respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

Date: 7/11/2006


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